

CLAIMS

What is claimed is:

1. A transmit path of a voice messaging system with speakerphone capability, comprising:

a microphone signal;

a gain module;

a message playback signal relating to a pre-recorded voice message; and

a summer in said transmit path;

wherein said message playback signal is combined with said microphone signal for transmission over a telephone line such that a far end user will simultaneously hear said microphone signal and said message playback signal.

2. The transmit path of a voice messaging system with speakerphone capability according to claim 1, further comprising:

a message gain module between said message playback signal and said summer.

3. The transmit path of a voice messaging system with speakerphone capability according to claim 2, wherein said message gain module comprises:

an automatic gain control portion; and

a fixed gain portion.

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4. The transmit path of a voice messaging system with speakerphone capability according to claim 1, wherein said gain module comprises:

- 5 a automatic gain control portion; and
 a fixed gain control portion.

5. The transmit path of a voice messaging system with speakerphone capability according to claim 1, further comprising:

- 10 a switched loss echo suppression module in said transmit
 path after said gain module.

6. The transmit path of a voice messaging system with speakerphone capability according to claim 5, wherein:

- 15 said message playback signal is combined with said
 microphone signal at a point in said transmit path after said switched loss
 echo suppression module.

7. The transmit path of a voice messaging system with speakerphone capability according to claim 6, further comprising:

- 20 a digital to analog converter in said transmit path at a point
 after said switched loss echo suppression module.

8. The transmit path of a voice messaging system with speakerphone capability according to claim 1, further comprising:

- 25 a transmit voice activity detector in communication with said
 transmit path, said transmit voice activity detector indicating a transmit
 condition of said speakerphone.

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9. The transmit path of a voice messaging system with speakerphone capability according to claim 1, wherein:

said voice messaging system is a telephone answering device.

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10. A method of simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone, comprising:

establishing a telephone call;

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initiating a transmit function of a speakerphone generating a microphone signal;

playing back a voice message pre-recorded on said speakerphone generating a playback message signal;

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combining said microphone signal with said playback message signal; and

transmitting said combined microphone signal and playback signal to a far end party over a telephone line.

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11. The method of simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 10, further comprising:

adjusting a gain of said microphone signal.

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12. The method of simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 11, further comprising:

adjusting a gain of said playback message signal.

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13. The method of simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 11, wherein:

5 said adjusting similarly adjusts a gain of both said microphone signal and said playback message signal.

14. The method of simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 11, wherein:

said combining occurs at a point in a transmit path after a gain of said microphone signal is adjusted.

15. Apparatus for simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone, comprising:

means for establishing a telephone call;

20 means for initiating a transmit function of a speakerphone generating a microphone signal;

means for playing back a voice message pre-recorded on said speakerphone generating a playback message signal;

means for combining said microphone signal with said playback message signal; and

25 means for transmitting said combined microphone signal and playback signal to a far end party over a telephone line.

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16. The apparatus for simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 15, further comprising:

5 means for adjusting a gain of said microphone signal.

17. The apparatus for simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 15, further comprising:

means for adjusting a gain of said playback message signal.

18. The apparatus for simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 15, wherein:

said means for adjusting similarly adjusts a gain of both said microphone signal and said playback message signal.

19. The apparatus for simultaneously transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 16, wherein:

said means for combining combines said microphone signal with said playback message signal at a point in a transmit path after said means for adjusting said microphone signal.